A3

9. (Amended) The dense mineral oxide solid supports of claim 1 [Claims 1 or 6], wherein the mineral oxide matrix is comprised of titania, zirconia, yttria, ceria, hafnia, tantalia, or mixtures thereof.

10. (Amended) The dense mineral oxide solid supports of claim 1 [Claims 1 or 6], wherein the interactive polymer network comprises a soluble organic polymer or a mixture of soluble organic polymers crosslinked in place with the mineral oxide matrix.

A4

14. (Amended) The dense mineral oxide solid supports of claim 1 [Claims 1 or 6], wherein the interactive polymer network comprises monomers, bifunctional monomers, or mixtures thereof copolymerized in place with the mineral oxide matrix.

A5

23. (Amended) A method of separating a target molecule by solid phase adsorption comprising passing a sample containing said target molecule through a chromatography device loaded with a solid phase matrix comprising the dense mineral oxide solid supports of Claim 1 [or Claim 6].

A6

27. (Amended) The method of Claim 25 [or 26], wherein said dense mineral oxide solid supports have a particle size in the range of about 5 μm to about 500 μm.

A7

40. (Amended) The method of Claim 38 [or 39], wherein said dense mineral oxide solid supports have a particle size in the range of about 5 μm to about 500 μm.

Please add the following new claims:

A8

59. (New) The dense mineral oxide solid supports of claim 2, wherein said dense mineral oxide solid supports have a particle size in the range of about 5 μm to about 500 μm.

60. (New) The dense mineral oxide solid supports of claim 6, wherein the pore volume is 5% to 25% of the total volume of the mineral oxide matrix.

A8

61. (New) The dense mineral oxide solid supports of claim 6, wherein the mineral oxide matrix is comprised of titania, zirconia, yttria, ceria, hafnia, tantalia, or mixtures thereof.

62. (New) The dense mineral oxide solid supports of claim 6, wherein the interactive polymer network comprises a soluble organic polymer or a mixture of soluble organic polymers crosslinked in place with the mineral oxide matrix.

63. (New) The dense mineral oxide solid supports of claim 6, wherein the interactive polymer network comprises monomers, bifunctional monomers, or mixtures thereof copolymerized in place with the mineral oxide matrix.

64. (New) A method of separating a target molecule by solid phase adsorption comprising passing a sample containing said target molecule through a chromatography device loaded with a solid phase matrix comprising the dense mineral oxide solid supports of claim 6.

65. (New) The method of claim 26, wherein said dense mineral oxide solid supports have a particle size in the range of about 5 μm to about 500 μm.

66. (New) The method of claim 39, wherein said dense mineral oxide solid supports have a particle size in the range of about 5 μm to about 500 μm.

REMARKS

Claims 1-58, as amended, and new claims 59-66 are pending in this application for the Examiner's review and consideration. No new matter has been added, since the claims have been amended and added only to remove multiple claim dependencies. Thus, Applicant respectfully submits that all claims are in condition for allowance, an early notice of which is earnestly sought.

No fee is believed to be due for the amendments herein. Should any additional fees be required, however, please charge such fees to Pennie & Edmonds LLP Deposit Account No. 16-1150.

Respectfully submitted,

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Date: March 22, 1999

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